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HOLARCTIC DISTRIBUTION OF *CHORISTONEURA ALBANIANA* (WALKER), WITH NEW SYNONYMY (TORTRICIDAE)

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ABSTRACT. *Choristoneura albaniana* (Walker) occurring in the northern regions of North America, and *C. lapponana* (Tengström) occurring in northern Europe and Siberia, are conspecific; the name *C. albaniana* has priority. This new synonymy helps determine the holarctic range of this species.

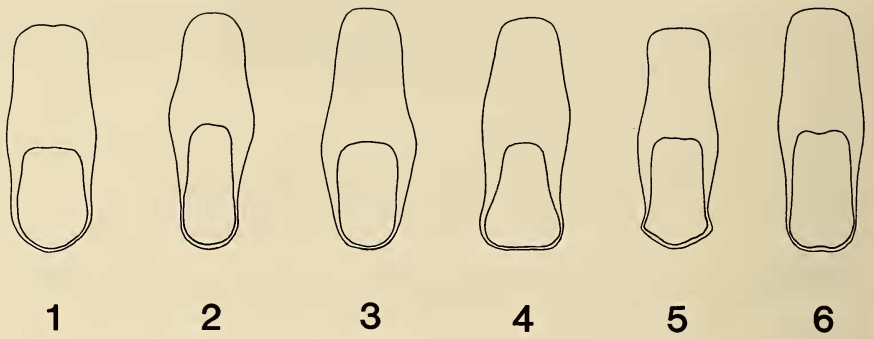
Additional key words: *Choristoneura lapponana*, transcontinental, male genitalia.

Choristoneura Lederer is a Holarctic genus. *Choristoneura fumiferana* (Clemens), *C. rosaceana* (Harris), and *C. conflictana* (Walker) of the Nearctic, and *C. diversana* (Hübner), *C. murinana* (Hübner), and *C. lafauryana* (Ragonot) of the Palaearctic, are widespread and transcontinental, but none has been recorded in both regions (Freeman 1958, Powell 1983, Kloet & Hincks 1972, Varis et al. 1987).

Choristoneura albaniana (Walker), described from a specimen collected in St. Martin's Falls, Ontario, is a transcontinental species that has been recorded in northern parts of North America, i.e., Alaska, Yukon, Northwest Territories, northern Manitoba, western Ontario, northern Quebec, and Labrador to Newfoundland. A southern record is represented by two specimens from Mt. Evans, Colorado. A specimen collected from Black Sturgeon Lake, Ontario, has a note indicating pin cherry, *Prunus pensylvanica* L. (Rosaceae) as a host plant.

Choristoneura lapponana (Tengström), described from Finland, has been recorded in northern parts of the Palaearctic region, including Sweden, Finland, Ural, Trans-Baikal, Amur, and along the taiga zone in the Siberian region (Kennel 1929, Kuznetsov 1973, 1978, Varis et al. 1987), and in Yukon, Canada (Kuznetsov & Mikkola 1991). A food plant has not been identified positively for this species; larvae were reportedly found on larch (Kuznetsov 1978), but this record requires confirmation.

Study of the male genitalia of *C. albaniana* from North America and *C. lapponana* from Finland (Dang 1992) revealed that the structures of these two species are similar in every comparable aspect. The characteristic longitudinal split, connecting with the apical opening of the aedeagus, is distinctly shifted laterally to the right side, whereas in other *Choristoneura* species it is dorsally located; the apical spine of the aedeagus is vestigial. The uncus is small with a convex or truncate apex, and a distinctly widened midportion (Figs. 1–6). Further study of the wings of *C. albaniana* and *C. lapponana*, which exhibit similar and



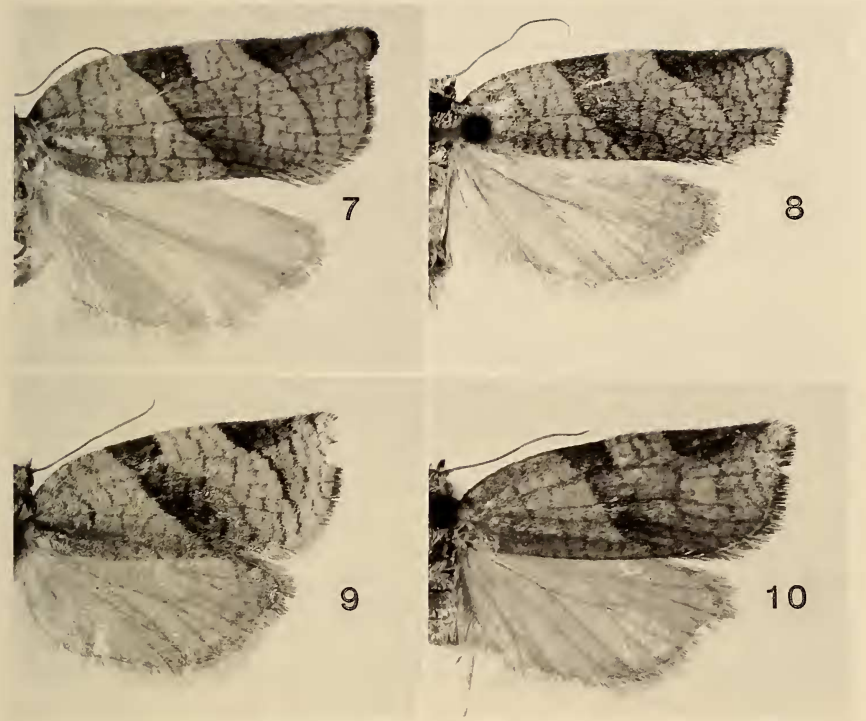
FIGS. 1–6. Ventral view of unci of *Choristoneura albaniana* from various localities in North America and Europe: **1,** Black Sturgeon L., Ontario, Canada; **2,** Bradore Bay, Quebec, Canada; **3,** Cameron Bay, N.W.T., Canada; **4,** Doolittle Range, Mt. Evans, Colorado, USA; **5,** Enontekio Karesuanto, Finland; **6,** Kilpisjarvi, Finland.

consistent colors and patterns (Figs. 7–10), prompts the present review of their taxonomic status. The shade of color of the forewing varies slightly from specimen to specimen. The ground color of the forewing varies from beige to brownish yellow; the oblique faciae vary from reddish brown to dark brick brown. Most specimens from North America have paler hind wings; a few have the same color as those from northern Europe. The different shades of color likely represent individual variation. On the basis of the overall morphological similarity, it is concluded that *C. lapponana* and *C. albaniana* are conspecific; the name *C. albaniana* has priority. Consequently, *C. albaniana* represents the only *Choristoneura* species recorded across the Holarctic region.

Choristoneura albaniana (Walker)
(Figs. 1–10)

Teras albaniana Walker, 1863:288.
Choristoneura albaniana, Freeman 1958:38; Powell 1983:40; Dang 1992:19.
Tortrix lapponana Tengström 1869:359. **New Synonymy.**
Dichelia Lapponana (sic), Rebel 1901:85.
Epagoge lapponana, Kennel 1929:112; Benander 1950:25.
Choristoneura lapponana, Obraztsov 1955:203; Kuznetsov 1973:77, 1978:348; Varis et al. 1987:64; Dang 1992:19.

The synonymy proposed is based on the examination of two males and one female of *C. lapponana* from the type locality (Karesuanto, Finland) and several specimens from nearby areas and the holotype of *C. albaniana* in The Natural History Museum, London, England, as well as a number of specimens of *C. albaniana* from various localities across North America. The holotype of *C. lapponana*, which was not examined in the present study, is in the Zoological Museum, University of Helsinki, Finland.



FIGS. 7–10. Wing patterns of *Choristoneura albaniana* from various localities in North America and Europe: **7,** Churchill, Manitoba, Canada; **8,** Anchorage, Alaska, USA; **9,** Enontekio Karesuanto, Finland; **10,** Kilpisjarvi, Finland.

Material studied. The number in parentheses immediately after the number of specimens studied indicates the number of male genitalia examined. CANADA: Newfoundland: Labrador, Hopedale, 12.VII.1927, 24.VII.1934, 26.VII.1935 (W. W. Perrett), 3 ♂♂ (1). Quebec: Indian House Lake, 11.VII.1954 (R. Coyles), 2 ♂♂ (1), and 12.VII.1954 (W. R. Richards), 2 adults without abdomen; Bradore Bay, 21 and 26.VII.1929 (W. J. Brown), 1 ♂ (1), 1 ♀; Knob Lake, 19.VII.1948, 16.VIII.1948 (E. Munroe), 1 ♂ and 1 ♀; Mt. Lyall, 1500′, VII.1933 (W. J. Brown), 1 ♂ and 1 ♀. Ontario: St. Martin's Falls (HOLOTYPE ♂) (1), BMNH, Black Sturgeon Lake, VI.1961–VI.1964 (Light Trap), 19 ♂♂ (4); Moose Factory, 21.VI.1949 (D. F. Hardwick), 2 ♀♀. Manitoba: Churchill, 4.VII.1937 (W. J. Brown), 1 ♂ and 1 ♀. N.W.T.: Cameron Bay, Great Bear Lake, 7.VII.1937 (T. N. Freeman), 4 ♂♂ (2); Bathurst Inlet, 20.VII.1951 (W. I. Campbell), 1 ♂ (1). Yukon: Swim Lake 3200′, 16.VI.1949 (E. W. Rockburne), 1 ♀; Rampart House, 9.VII.1951 (J. E. H. Martin), 2 ♀♀; Dawson 3200′, 9.VII.1949 (P. F. Bruggeman), 1 ♂ (1). USA: Alaska: Anchorage, 26.VI.1951 (R. S. Bigelow), 1 ♂. Colorado: Doolittle Range 9800′, Mt. Evans, 30.VII–2.VIII.1961 (E. W. Rockburne), 2 ♂♂ (1).

FINLAND: Kilpisjarvi, 8.VII.1936 (Lankiala), 1 ♂ (1); Malla subalp., 2.VII.1936 (Lankiala), 1 ♀; Enontekio Karesuanto, 20.VI.1948 (O. Peltonen), 1 ♂ (1); Suecia to Jukkasjarvi, UTM 34W DA8930, 21.VI.1978 (Ingvar Svensson), 2 ♂♂, BMNH; Ytatuostari, 12.III.1935 and VI.1937 (W. Hackman), 1 ♂ and 1 ♀, BMNH. All specimens in the Canadian National Collection of insects, Ottawa, except as indicated otherwise (BMNH = The British Museum of Natural History, now known as The Natural History Museum, London, England).

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